cordial angle, a low lying umbilicus, and flat or sunken abdominal wall, the pylorus will be made visible with difficulty on account of the falciform ligament of the liver. In stout men with emphysematous chests, the pylorus is so far from the epigastric line that the poorly movable pylorus is brought out and the ulcer exposed with great difficulty. For these reasons Ewald now makes the abdominal incision not in the median line, but parallel to it and through the right rectus muscle. The falciform ligament of the liver is then pushed toward the median line. The abdomen is opened first in the lower angle of the incision, the finger is introduced and pushes the falciform ligament toward the median line, and the peritoneum is divided upward. The edge of the liver is lifted upward, when one usually comes directly upon the perforation. The exudate clinging to the pylorus and first portion of the duodenum is then cleared away, and the infiltrated fatty appendages are removed. If the perforation has not been exposed by this time, the posterior surface of the pylorus is made accessible. Only in rare instances will this be necessary.

Direct Blood Transfusion by Means of Paraffin-coated Glass Tubes.—Brewer and Leggett (*Surg., Gyn., and Obstet.*, 1909, lx, 293) record the results of some experiments undertaken to find some simple method of direct blood transfusion. End-to-end suture as practised by Carrel and union by the ingenious cannula of Crile have been the methods generally employed in the past. A set of glass tubes was made, some straight with uniform caliber, others bayonet shaped, and still others somewhat tapering in shape and caliber, to be used for transfusion from a large adult artery to the small vein of a child. Each end of the tube is notched, to allow a ligature being applied after the tube is introduced into the lumen of the vessel The tube is sterzilied in an autoclave or by boiling, dropped into boiling paraffin, and the excess of paraffin removed by shaking the tube in the air. The following method of transfusion, as described for No. 1, was performed in all the experiments: The external jugular was exposed in dog No. 1, and the common common carotid in dog No. 2. The proximal extremity of the external jugular of dog No. 1 was temporarily clamped and the vein divided, allowing copious hemorrhage from the distal extremity. When the animal began to show signs of weakness and falling pulse, the distal extremity of the vein was ligated. The two dogs were then placed side by side, the carotid artery of dog No. 2 being double clamped and divided between the two constricted areas. The lumen of the proximal portion of the artery was then expanded by three mosquito forceps, and one extremity of the glass tube introduced and held by a silk ligature placed around the vessel in the notch of the tube. The orifice of the proximal portion of the jugular vein was next expanded in the same manner by means of three mosquito forceps. Before introducing the distal end of the glass tube, the arterial clamp was temporarily released and a few jets of bright arterial blood allowed to pass from the tube. It was then quickly introduced into the lumen of the vein and secured by a second silk ligature. As soon as the temporary clamps were removed, blood could be seen to pass from the artery of the donor to the vein of the donee, causing distinct pulsations in the vein, corresponding to the arterial pulse of the donor. Dog No. 1 was quickly revived by the transfusion, which lasted about six minutes. The vessels were then ligated and the wounds closed and dressed. In thirty-one experiments, only three animals died, each from a too rapid transfusion of the blood, causing overdistention of the right heart. On one occasion only did the blood apparently clot in the tube, and that was undoubtedly due to the very small caliber of the tube used. In one other experiment clotting occurred in the vein near the extremity of the tube, due to an accidental separation of the. paraffin coating. The writers believe that this is the simplest method yet proposed, that it can be carried out by any surgeon of ordinary experience without the necessity of previous training. It has been employed in one patient suffering from anemia due to gastric-hemorrhage. The blood flowed for nineteen minutes through a medium-sized tube without clotting. The patient rallied well. His hemoglobin rose from 30 to 70 per cent. during the progress of the operation, but the patient died the following day from a recurrence of the hematemesis.

THERAPEUTICS.

UNDER THE CHARGE OF

SAMUEL W. LAMBERT, M.D.,

PROFESSOR OF APPLIED THERAPEUTICS IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
COLUMBIA UNIVERSITY, NEW YORK.

The Treatment of Erysipelas by Means of Carbolic Acid and Alcohol.—JUDD (*Medical Record*, 1909, vii, 268) reports 82 cases of erysipelas treated by this method during the past eight years. His statistics show 67 complete remissions of symptoms in from twelve hours to four days. There were ten delayed recoveries, and the treatment failed in five of the cases. The technique of the method consists of painting with a swab of cotton the entire surface of the involved area, and extending about half an inch into the surrounding and apparently healthy skin, with a 95 per cent. solution of carbolic acid. This is left until the purplish color of the inflamed area is replaced by a pretty complete whitening of the skin. When large areas are involved, it is advisable that only a portion be painted at a time. The second step consists in going over the whitened areas, very thoroughly with a second swab saturated with pure alcohol. The swabbing with the alcohol must be kept up until the whitened area becomes pink. Half an inch of the surrounding sound skin must be included, as the bacteria of erysipelas are found beyond the apparently involved area. This method includes the painting of the hairy scalp, the eyelids, the mucous membrane of the alæ of the nose, and the nipple of the breast, if necessary. Judd has failed to note any bad results from this treatment. He says that there has been no marked toxic action of the carbolic in any case so far observed, although the urine is sometimes darkened and of a characteristic odor. Almost the first result noticed by the patient is a complete cessation of the unendurable itching, burn-